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M-Pesa
Design Study

SUBMITTED BY

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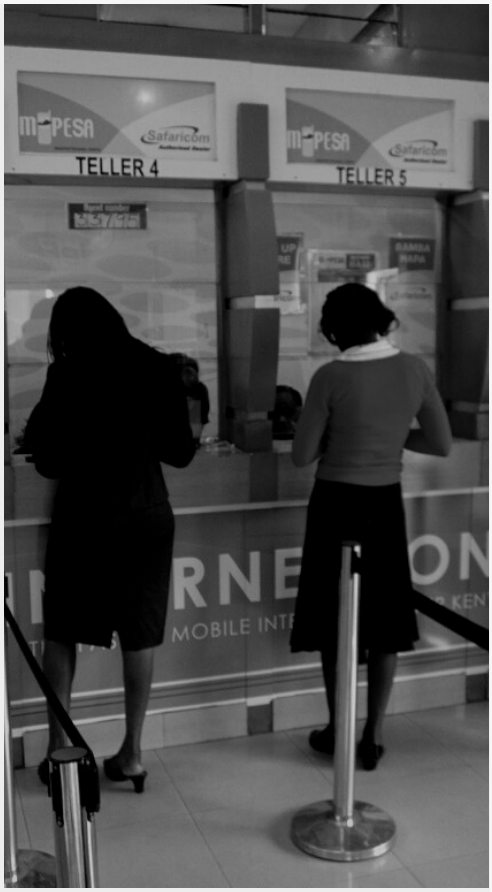
Introduction

Context

The structural adjustment programs introduced by the World Bank and the IMF left the rural population of Kenya with no access to financial services (Ndirangu, 2005; Rono, 2002), while 14.3% of the Kenyan population depended on money transfers from relatives as their main income source (FSD Kenya, 2009 cited in Ngugi et al., 2010).

Today 70% of Kenyan adults use M-Pesa, a mobile banking provider, to transfer USD320 million per month, roughly 25% of Kenya's GDP (Ndiaye, 2014).

What made M-Pesa so successful in Kenya?



Safari.com, the parent company of M-Pesa, followed a **design-led user-centered innovation process** by examining the observations of a pilot study of mobile banking involving around 20 small villages conducted by Equity Building Society (2002) and building a product around user's latent needs that the pilot study uncovered.

How does it work?
The user simply sends an SMS with the correct amount to the recipient's phone number. The amount is then added to the recipient's wallet. The service is free in most supermarkets and restaurants, and a transaction never costs more than a few cents.

Persona Map-who is it for?

Figure 1: derived from DW Shift (2015)

User Fit using Don Norman's **Three Levels of Design**

On a **visceral level**, M-Pesa is appealing to urban **businesspeople** because of its ease of use and low transaction fees to send money to clients, paying conveniently at the supermarket check-out, at the coffee shop, or paying bills and salaries. Mpesa creats peace of mind and relieves the **user pain** of previous lack of security when sending money to relatives in rural areas of Kenya through bus companies or traveling up-country in person.

Moreover, Mpesa simplifies everyday-life payments at the supermarket check-out, or in restaurants or cafés, for example. "I just pay and that's it. The exact amount" (Mercy cited in DW Shift, 2015). Mercy now simply pays cashless by sending an SMS code. Prior to Mpesa paying small amounts of USD1 cashless used to be inconceivable.

It also provides immense functional to **rural people** because M-Pesa neither requires tech-savviness nor literacy to operate it. The service is physically accessible and socially embedded into the rural community through local shops, which are a key component for Mpesa rapid adoption and spread.

Thus, on **Maslow's Hierarchy of Needs** M-Pesa addresses elementary physiological needs for rural people and functional as well as convenience demands of urban business people.

On a **behavioral level**, M-Pesa positively contributes to women entrepreneurship and financial inclusion, and thus helps to strengthen communities, improve social relationships between men and women, and allows for greater financial room to keep children healthy.

On a **reflective level**, M-Pesa is associated among users with bringing about societal benefits including reliabilty, speed, convenience, which strengthens trust and adoption in the service.

Spread and **Growth**

Spread

According to Venkatesh et al. (2003) adoption of a new technology depends on four major theoretical constructs:

- performance expectancy,
- effort expectancy,
- social influence and
- facilitating conditions.

In the case of M-Pesa, traditional banking's high transaction fees led to a rapid adoption of M-Pesa among businesspeople, i.e., early adopters. M-Pesa's offering provided an easy, reliable and cheap alternative to existing methods of sending money to relatives, which led to **networks effects** (see Shapiro & Varian, 1999), which were deliberately created by Safari.com.

Through **social influence** of relatives (also technical advice on how to operate), M-Pesa could cross the Chasm from the early adopters to the early majority (Moore, 1991).

The adoption has further been facilitated by **Safaricom's** huge **market share** of 79%, the social **ubiquity of phones** [mainly Nokia] and **favorable regulations** (Mwangi & Njuguna, 2009; Ngugi et al., 2010).

Grow

While Ngugi et al. (2010) points out **great growth potential** for M-Pesa in the area of e-commerce, bill inquiry and payment and salary inquiry, M-Pesa also creates **dependability** of the Kenyan population on the service and thus should be carefully monitored by domestic regulators.

References

DW Shift, 2015. Mobile payment in Africa | M-Pesa | SHIFT. [online] Youtube.com. Available at: https://www.youtube.com/watch?v=n87VBVbjUeE&t=8s [Accessed 27 March 2021].

Equity Building Society, 2002. Equity Building Society of Kenya Reaches Rural Markets. pp.1-8.

Kimenyi, M. and Ndung'u, N., 2009. Expanding the financial services frontier: Lessons from mobile phone banking in Kenya. Washington, DC: Brookings Institution), October.

Moore, G., 1991. Crossing The Chasm.

Ndiaye, O., 2014. Is the success of M-Pesa 'empowering' Kenyan rural women?. [online] openDemocracy. Available at: https://www.opendemocracy.net/en/5050/is-success-of-mpesa-empowering-kenyan-rural-women/ [Accessed 7 February 2021].

Ndirangu, M., 2005. Kenya Today: Breaking the Yoke of Colonialism in Africa. NewYork, NY, USA: Algora Publishing.

Ngugi, B., Pelowski, M. and Ogembo, J., 2010. M-pesa: A Case Study of the Critical Early Adopters' Role in the Rapid Adoption of Mobile Money Banking in Kenya. The Electronic Journal of Information Systems in Developing Countries, 43(1), pp.1-16.

Rono, J.K., 2002. The impact of the structural adjustment programmes on Kenyan society. Journal of Social Development in Africa, 17(1), pp.81-98.

Shapiro, C., Carl, S. and Varian, H.R., 1998. Information rules: A strategic guide to the network economy. Harvard Business Press.